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ABSTRACT

Revised version of paper towards nuclear war were investigated. Two questionnaires were administered. The first included five incomplete sentences designed to assess indirectly each respondent's fear of nuclear war. In response to either "My greatest fear regarding the future is..." and "I worry about...", 23 of 127, or 18.1 percent of those responding, indicated that nuclear war or destruction was a concern. The second questionnaire was a direct follow-up which asked how often each person thought about nuclear war, how worried they generally became, and other questions concerning demographic information. Typical respondents indicated that they thought about nuclear war a little more than once a year and were somewhat worried when they did. Students with liberal arts majors were more likely to mention nuclear war as a fear than were students in other majors. The more intelligent college students thought about nuclear war more often and had more nightmares about it. Students from larger hometowns perceived the individual as having a greater impact on policy regarding nuclear war than did students from smaller places. (RM)

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Nuclear War: Fears and Concerns of College Students[1]

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Running head: Nuclear War

Abstract

This study investigated the attitudes and feelings that undergraduates at a small state college in the Pacific Northwest have towards nuclear war. The data was collected during regular class time in several survey courses. Two questionnaires were administered to each volunteer. The first included five incomplete sentences with two specifically designed to assess indirectly each respondent's fear of nuclear war. In response to either "My greatest fear regarding the future is..." and "I worry about...", twenty-three of 127, or 18.1% of those responding, indicated that nuclear war, nuclear destruction, or some related term was a concern. The second questionnaire was a direct follow-up which asked how often each person thought about nuclear war, how worried they generally became, and other questions concerning demographic information. The typical respondent indicated that they thought about nuclear war a little more than once a year and were somewhat worried when they did. Results were discussed in terms of the issue of denial.

Nuclear War: Fears and Concerns of College Students

The increased possibility of a nuclear confrontation between the United States and the Soviet Union has been alluded to and discussed directly during the past presidential election and during the Reagan administration. The founding and growth of the Ground Zero movement attests to a deeper concern on the part of many Americans. Psychologists and other social scientists have devoted a considerable amount of time studying the phenomenon of war especially concentrating on how attitudes towards war are affected by specific conflicts (i.e., Cranberg, 1969; Aldous and Tallman, 1972; Handberg, 1972; Rosenbaum and Rosenbaum, 1973). The literature concerning nuclear war is less extensive. The purpose of this paper is to add to this literature on attitudes and concerns about nuclear war.

In a review of research findings concerning the reactions of children to nuclear war, Elder (1965) questioned the notion that the possibility of nuclear war creates strong emotional reactions in most children. Despite the pervasive nature of anecdotal accounts of trauma, he convincingly warned researchers of the dangers of overgeneralization. In addition, Elder (1965) advocated indirect or disguised approaches as the best methodologies of revealing true emotional responses to nuclear war. Research using indirect methods reported by Elder (1965) did not clearly indicate that children were having strong emotional responses to the threat of nuclear war. In the nearly

two decades since this review by Elder, the professional literature has provided a picture of the attitudes and beliefs about nuclear war that is at best sketchy. In a study conducted to determine the basic fears of children, Croake (1972) found that the most common fears were political, such as fear of "communists taking over" and "war" (p. 346). One implication being that this involves fear of nuclear confrontation. Although adults have been shown to be reluctant to advocate the use of nuclear weapons, such use is not ruled out entirely (Aldous & Tallman, 1972; Jeffries, 1974). In a study done during the Cold War, subjects' belief in the liklihood of nuclear war increased after reading a Civil Defense pamphlet describing the construction of fallout shelters, as did their optimism regarding the outcome of such a war (Novak & Lerner, 1966). Jeffries (1974) found that even the generation which came to political and social consciousness during the Vietnam protests and peace movements were not prepared to completely reject the possibility of using nuclear weapons, though they were significantly more rejecting than those who came to political consciousness during World War II.

Since Elder's (1965) earlier review, many issues still remain unclear. How much concern and fear do children and adults actually have regarding the threat of nuclear war? This present investigation is a descriptive study which utilized the indirect approach to assessing concerns about nuclear war as advocated by Elder as well as a more direct approach to determine how often and to what degree college students fear and worry about the threat of nuclear war. In addition, several of the variables which Elder (1965) pointed out

could inhibit the overt expression of fear of nuclear war were included to assess their effect on subject response patterns. These variables included age, sex, intelligence as indirectly approximated by college GPA, and habitat as determined by geographic location of hometown and size of hometown.

Method

Subjects

Subjects for this study were students from several freshman-level survey courses from a small state-supported college in the Pacific Northwest. Each subject agreed to complete the two questionnaires during class time immediately after their instructor explained what was expected of them. A total of 127 persons returned questionnaires. Due to incomplete responses on many of the questionnaire items, the total number fluctuates from variable to variable. The age of the subjects varied from 17 to 44 with a median age of 19 and a mean age of 22.29 with a standard deviation of 6.28. Forty-three and a half percent of the subjects were male and fifty-six and a half percent were female. Freshmen made up 64.8% of the sample with sophomores, juniors and seniors making up the remaining 14.4%, 9.6% and 11.2% respectively. 93.5% were from West Coast and Pacific Northwest states with the remaining 2.8%, 2.8% and 0.9% coming from the Rocky Mountain states, Midwest states and Eastern states, respectively. Each respondent indicated the size of their hometown with 15.9% growing up in towns of 1,000 or less persons, 24.3% in towns of 1,001-5,000 persons, 8.4% in towns of 5,001-10,000 persons, 39.3% in towns of 10,001-40,000 and 12.1% in towns larger than 40,000. The GPA's of the subjects

ranged from 1.72 to 4.00 with a median GPA of 2.99 and a mean GPA of 3.01 with a standard deviation of 0.571.

Procedure

Subjects were asked to participate in a study designed to determine some of their general attitudes and feelings as part of a research project of a faculty member in the Psychology Department. Those agreeing to participate in the study completed two questionnaires. The first questionnaire included items regarding demographic information and five incomplete sentences which respondents finished in a way that expressed their real feelings. (This incomplete sentences questionnaire can be found in Appendix A.) Immediately after completing this questionnaire, each respondent was given a questionnaire dealing specifically with concerns and attitudes towards nuclear war and related issues. (This nuclear war issues questionnaire can be found in Appendix B.) The questionnaires were administered in this way so responses to the first questionnaire would not be affected by the topic of nuclear war reflected in the second questionnaire.

Results

Incomplete Sentences Questionnaire

Only responses to items two and four were of particular interest to this study. In response to either "2. My greatest fear regarding the future is..." and "4. I worry about...", a total of 18.1% of the sample indicated that nuclear war, nuclear destruction or some related term was a concern. The group of respondents that mentioned nuclear war (MENTION) was compared to the

group that did not mention nuclear war (NOT MENTION) using age, size of hometown, location of hometown, year in school and GPA as dependent variables. The results of five independent t tests showed no statistically significant differences between the MENTION vs. NOT MENTION groups on these dependent measures. The MENTION and NOT MENTION groups were also compared using college major as a dependent variable. College major was classified into liberal arts majors (i.e., humanities, social science and general studies), professional majors (i.e., business, education and nursing) and those that were undeclared. The results of a cross tabulation between these college major classifications and the MENTION vs. NOT MENTION groups is presented in Table 1. A chi square test was significant at the .05 level (χ^2=8.709, df=2). The liberal arts majors appear to mention nuclear war more than undeclared students or students with majors in professional areas. Males and females did not mention nuclear war at a significantly different rate (χ^2=1.380, df=1).

Insert Table 1 about here

Nuclear War Issues Questionnaire

The frequency and the percentage of the sample that responded to each alternative of questions 2, 3, 4, 7 and 8 are presented in Table 2. Using the median value to describe the typical respondent one may say that this person thought about nuclear war once a year, was somewhat worried about it, never had nightmares about it, thought individuals could have some impact on policy matters in this arena and felt President Reagan should discuss arms

control with the Soviets. Respondents were also asked to rank a series of items on a scale from one to ten with one being most worrisome. Nuclear war had a median rank of 6.00 and a mean rank of 5.42 with a standard deviation of 3.29.

Insert Table 2 about here

Intercorrelations between the demographic variables and the responses to the closed format items were computed and are reported in Table 3. The correlation between size of hometown and the perceived impact individuals have on policy was significant at the .05 level. Respondents coming from larger hometowns felt individuals could have a larger impact on policy. The rank of fear of nuclear war had significant correlations with how often one worries, the degree of worry and the impact an individual can have. This indicates that the higher the rank of nuclear war (1 being high), the less often they reported thinking about nuclear war, the less extreme their degree of worry and the less impact they perceived individuals having on nuclear policies. How often the respondents indicated that they think about the possibility of nuclear war correlated significantly with GPA, the degree of worry, frequency of nightmares, and impact on policy. This indicates that the more often the respondent thought about nuclear war, the more worry they experienced in the process; the more nightmares they reported, the more impact they believed an individual could have on policy and the higher their GPA. Frequency of

reported nightmares about nuclear war also correlated significantly with degree of worry, GPA, and need for arms talks with the Soviets. This indicates that the higher the number of reported nightmares about nuclear war the more extreme the degree of worry with thinking about nuclear war, the higher their GPA and the higher the need for the President to engage in arms talks regardless of the possibility for success. The amount of impact that an individual was perceived to have on policy was also correlated with degree of worry and the need for arms talks. This indicates that the more impact an individual was believed to have the more extreme the worry when thinking about nuclear war and the higher the need for arms talks.

Insert Table 3 about here

Discussion

The fear of nuclear war was expressed by 18.1% of the sample in this study using sentence completion tasks. When one considers that adults often act as if nuclear war is a taboo topic with their children (Luty, 1983) and that there are strong psychological pressures towards the denial of sources of the anxiety caused by nuclear war (i.e., Frank, 1980; Reveron, 1982), this pseudospontaneous estimate of the fear and concern college students have towards nuclear war is probably somewhat low. The only variable measured in this study which differentially determined those that mentioned nuclear war as a fear was college majors with liberal arts majors more likely to do so than students in other

majors. More research is needed to replicate these results and to determine other variables that mediate this expression of fear.

The only demographic variables that were related to the direct questions concerning nuclear war issues were college GPA and size of hometown. Using college GPA as a rough estimate of intelligence, it appears that the more intelligent college students thought about nuclear war more often and had more nightmares about it. This supported the contention of Elder (1965). The determination that those from larger hometowns appear to perceive the individual as having a greater impact on policy runs counter to expectation. However, nearly 88% of the sample were raised in hometowns with populations less than 40,000 which may have biased the results.

While the correlational nature of this study does not allow the inference of causal relationships, college student responses demonstrate consistency on many of the variables. The college student that reports worrying about nuclear war more often, ranks fear of nuclear war as more worrisome, has more nightmares about nuclear war and expresses a higher degree of worry when thinking about nuclear war. The college student that reports worrying about nuclear war less often, ranks fear of nuclear war as less worrisome, has fewer nightmares about nuclear war and expresses a lower degree of worry when thinking about nuclear war. This cognitive consistency is also linked with the perceived impact an individual has on policy. The more often one reports worrying, the more impact is perceived and the less often one reports worrying, the less impact. In terms of attitude change, future research might study

the effect of the dissonance created as these variables are modified through experimental situations.

A clear limitation of this study is the narrow sample which affects the generalizability of the results. This research needs to be replicated with other college populations in other parts of the country as well as other adult populations before firm statements about the implications of the results are made.

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APPENDIX A

Major(s)_____ Age_____

Circle one: Male Female College GPA_____

Size of Hometown: 1-100 101-500 500-1000 1001-5000 5001-10,000
10,001-40,000 40,000 or more

Location of Hometown: Pacific Northwest Southwest Rocky Mountain States
Southeast Midwest Northeast

Circle One: Freshman Sophomore Junior Senior

Complete each of the following sentences in a way that expresses your real feelings:

1. What I would change about me is

2. My greatest fear regarding the future is

3. The thing I can do best

4. I worry about

5. Someday I will

APPENDIX B

Major(s)_____ Age_____

Circle one: Male Female College GPA_____

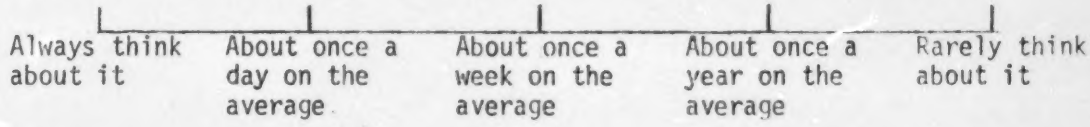
Size of Hometown: 1-100 101-500 501-1000 1001-5000 5001-10,000
10,001-40,000 40,001 or more

Location of Hometown: Pacific Northwest Southwest Rocky Mountain States
Southeast Midwest Northeast

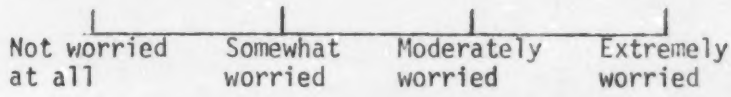
Circle one: Freshman Sophomore Junior Senior

1. Rank each of the following in terms of the amount of worry and/or fear that each invokes in you. (1 being most worrisome)
   ___ College life
   ___ Finding and maintaining a job
   ___ Grades and test scores
   ___ Natural disasters and phenomena
   ___ Nuclear war
   ___ Relationships with family members
   ___ Relationship with peers of opposite sex
   ___ Relationships with peers of same sex
   ___ Relationships with persons at your job
   ___ Other (please specify)
   ___ Other (please specify)

2. How often do you think about the possibility of nuclear war? Place an X on the following continuum:


Always think about it
About once a day on the average
About once a week on the average
About once a year on the average
Rarely think about it

3. When you think about nuclear war, how worried do you generally become? Place an X on the following continuum:



4. How often have you had a nightmare or unpleasant dream about an atomic explosion or nuclear war? Circle one.

   Never Once or twice Several times Often Regularly

5. What are the purposes of Ground Zero and the nuclear freeze movements?

6. What types of persons are members of Ground Zero and the nuclear freeze movements?

7. What chances do you think individuals have in making an impact on policy in this matter? Circle one.

   No impact Some impact Moderate impact Extreme impact

8. Should President Reagan discuss arms control issues with the Soviets? Circle one.

   Yes Only if a true chance for an agreement exists. No

Table 1

CROSS TABULATIONS OF VARIABLES COLLEGE MAJOR
AND MENTION OR NOT MENTION OF NUCLEAR WAR

	Liberal Arts (N=23)	Professional (N=74)	Undeclared (N=30)
Mention Nuclear War (N=23)	39.1%[1] 39.1%[2]	14.9% 47.8%	10.0% 13.0%
Not Mention Nuclear War (N=104)	60.9% 13.5%	85.1% 60.5%	90.0% 26%

[1]Column percentages reported in upper left-hand corner of each cell.

[2]Row percentages reported in lower right-hand corner of each cell.

Table 2

FREQUENCY OF RESPONSES TO CLOSED-ENDED QUESTIONNAIRE

(2) How often do you think about the possibility of nuclear war?

	(1) Rarely	(2) Once a year	(3) Once a week	(4) Once a day	(5) Always
N	39	25	37	12	0
%	34.5	22.1	32.7	10.6	0

Median = 2 Total N=113

(3) When thinking about nuclear war, how worried do you generally become?

	(0) Not Worried At All	(1) Somewhat Worried	(2) Moderately Worried	(3) Extremely Worried
N	24	49	38	8
%	21.2	43.4	28.3	7.1

Median = 1 Total N=113

(4) How often have you had a nightmare or unpleasant dream about an atomic explosion or nuclear war?

	(0) Never	(1) Once or Twice	(2) Several Times	(3) Often	(4) Regularly
N	85	22	5	1	0
%	75.2	19.5	4.4	.9	0

Median = 0 Total N=113

(7) What chances do you think individuals have in making an impact on policy in this matter?

	(0) No Impact	(1) Some Impact	(2) Moderate Impact	(3) Extreme Impact
N	14	47	42	10
%	12.4	41.6	37.2	8.8

Median = 1 Total N=113

(8) Should President Reagan discuss arms control with the soviets?

	(0) No	(1) Only If True Chance for Agreement	(2) Yes
N	8	50	55
%	7.1	44.2	48.7

Median = 1 Total N=113

Table 3

CORRELATIONS

	AGE	GPA	SIZE OF HOME	LOCATION OF HOME	RANK OF FEAR	HOW OFTEN WORRY	DEGREE OF WORRY	FREQUENCY OF NIGHTMARES	IMPACT ON POLICY
GPA	.126								
SIZE OF HOMETOWM	-.088	.191							
LOCATION OF HOMETOWN	-.115	-.002	.155						
RANK OF FEAR	.145	-.092	.099	.034					
HOW OFTEN WORRY	-.087	.282*	-.051	-.031	-.349***				
DEGREE OF WORRY	-.091	.161	.050	.073	-.409***	.254**			
FREQUENCY OF NIGHTMARES	.067	.268*	.127	.004	-.155	.320***	.200**		
IMPACT ON POLICY	.065	.052	.224*	.065	-.238	.341***	.295***	.079	
NEED FOR ARMS TALKS	-.045	.122	.091	-.155	-.003	.144	.123	.190*	.241**

*p < .05 **p < .01 ***p < .001